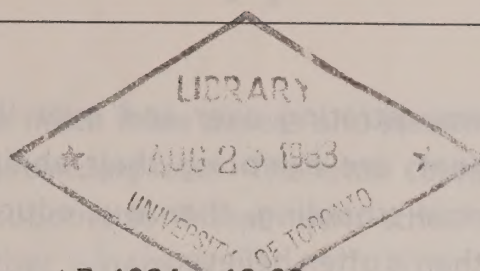


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TORONTO ... August 7, 1984 ... 10:00 a.m.

A major research study by the Ontario Economic Council on the economics of education in Ontario calls for a significant reorganization of our education and job-training systems.

The study, *Information in the Labour Market: Job-Worker Matching and Its Implications for Education in Ontario*, was prepared for the Council by James B. Davies and Glenn M.T. MacDonald, members of the Department of Economics of the University of Western Ontario.

It presents a theory of the economics of education which focuses on how students build up a picture of their real skills and abilities in the process of going to school. Students obtain information which will allow them to make better choices about future study and jobs. Education therefore has another function besides skill acquisition.

By helping to direct students to the right forms of professional and vocational study, and by improving job-worker matching, such information increases earnings and productivity and reduces unemployment and poverty.

This report reflects the views of the authors and not necessarily those of the Ontario Economic Council. The Council establishes policy questions to be investigated and commissions research projects, but it does not influence the conclusions or recommendations of authors. The decision to sponsor publication of this study was based on its competence and relevance to public policy and was made with the advice of anonymous referees expert in the area.

If, instead of merely demonstrating over and over their academic ability via repeated tests etc., students are *exploring* their abilities in a productive way throughout much of formal schooling, then our education system is far more valuable and productive than is often believed.

The recognition that there are sharply differentiated kinds of schooling—information accumulation vs. skill acquisition for example—raises important questions. People naturally want to know how we can tell whether our students get the right mix of these different kinds of schooling. Should we really be emphasizing more instruction in job skills, as the current tide in favour of greater 'vocationalism' suggests? Or is the kind of education system that has been built up in Ontario doing its job correctly already?

Davies and MacDonald reject the notion that economists, or any other experts, have a crystal ball that will allow them to say whether the kind of education being provided in our schools, colleges, and universities is 'right'. Instead, a method has to be found to harness the information possessed by all the individuals concerned in the education system – teachers, students, parents, employers – and to give the education system incentives to act on that information to provide the kinds of education that are really needed and desired. This is necessary if we are to make the changes that are appropriate as technology and the world of work evolve and change in the future.

While we realize that the best way to harness the information possessed by individuals, and to provide incentives to industry to act on that information, is normally to use the market mechanism, for some reason we have refused to recognize that this holds true for education. What the authors recommend is that, in order to make sure we get the right mix and amount of different kinds of schooling – information accumulation, skill acquisition, etc. – we have to find ways of making much greater use of the power of the free market in the education system.

The authors say post-secondary institutions should be given freedom to compete more effectively, and should have full control over tuition fees, and which programs are offered. The study suggests the Ontario government should not attempt to run an education system on the basis of central planning. It also says there is a strong

need in the province for much more parent and student choice among institutions at the elementary and secondary level. The latter could be achieved if the Ontario government provided support to independent schools by way of a sizeable per student subsidy or 'voucher' system.

The study says a strategy of exploiting the market mechanism to get the right mix and amount of different forms of training can be applied to manpower training as well as to formal education. The authors call on the federal government to come up with initiatives in both manpower training and post-secondary funding, including a system of wage subsidies for young workers.

Methods of increasing freedom of choice and competition in the post-secondary system.

The authors recommend the implementation of the following three changes in provincial policy towards colleges and universities.

- 1) The institutions should have full control over tuition fees. This is a vital prerequisite for the operation of the market mechanism. Prices must be flexible in order to transmit information on required changes in allocation through the system.
- 2) The institutions should be given full control over which programs they offer. It is no good having flexible prices signalling required changes if the institutions do not have full freedom to innovate and to try to capture student demand.
- 3) At the university level, the formula for determining operating grants should be reformed. Its one-half basis in 1974-77 enrolments should be terminated. A return to 100 per cent reliance on a moving average of current enrolments should be restored. If the moving average of current enrolment is weighted only 50 per cent, provincial operating grants lose a great deal of their power to induce appropriate response of universities to student demand. The authors acknowledge that it will be objected by some that these recommendations would expose colleges and universities too greatly to the rigours of the marketplace. There is a fear of 'destabilization', particularly in view of the sudden enrolment shocks of the last two decades. There is also an

anxiety that the liberal arts may be cut back so much that the essential character of the universities is threatened.

'While the measures we advocate would undoubtedly increase the exposure of post-secondary institutions to market forces, we do not envisage these negative results. Use of the price mechanism could actually reduce the amplitude of enrolment swings and would cushion the institutions from the effects of changes in the structure of enrolment demand. When demand for a program increases, at present the institutions are urged from many quarters to expand with no increase in the financial reward and frequently with rapidly rising input costs. With flexible tuition fees, however, an increase in price can be used both to choke off the excess demand and to raise the revenue required to expand, without reducing quality. Conversely, when demand falls, a decline in price can be used to encourage students to enter a program temporarily out of fashion.'

As for the effects on the liberal arts, the authors say it is far from clear that their long-term viability is threatened by encouraging institutional responsiveness to enrolment demand. They say the need for this type of program has too strong a basis to be permanently or seriously eroded.

Recommended policy for the Ontario government.

There is a great deal of current concern about the quality of education in Ontario (as elsewhere in Canada)—at all levels of the system. Since the schools, colleges, and universities are all under varying degrees of provincial control, this dissatisfaction raises the question of provincial policy initiatives.

'The only reliable way to ensure technical efficiency in education and the correct mix and amount of different forms of education—human capital information, investment in person-specific information, etc.—is to use the market mechanism. It is far too difficult to *plan* an education system so that by state direction of resources the goals of efficiency in production and correct composition of output can be achieved.'

More choice is needed.

The study says there is a strong need in Ontario for much more parent and student choice among institutions at the elementary and secondary level. Currently there is an element of choice between the public and separate systems and between schools within each system. However, this does not appear to ensure sufficient choice to simulate a competitive outcome.

'We would like to see introduced something like British Columbia's Independent Schools Support Act of 1977. This legislation provides a sizeable per student subsidy to accredited independent schools, thereby considerably increasing the element of choice for parents and students. *It should be noted that a significant by-product of allowing choice between public and independent schools would be a provision of an objective test of the quality of the public system.* At present there are mixed opinions about which way the public schools ought to move—towards more vocational emphasis, greater stress on 'basics', or towards greater flexibility. The changes that are genuinely warranted would be easier to see if we could observe how the programs freely chosen at independent schools by those who opted out differed from the public school menu.'

The authors believe less radical change is required at the post-secondary level, because many of the elements of competition are already in place—there are numerous alternative institutions, faculties, and programs all in direct competition for students, and the institutions have considerable control over the kind of studies they offer students. The principal barriers to competition are controls on price (regulation of tuition fees) and on programs (provincial authorization is required before a wide range of new types of program may be introduced).

Federal policy recommendations.

The study suggests that federal initiatives are needed in both manpower training and post-secondary funding. On both efficiency and equity grounds it would be desirable to have general subsidies to on-the-job training in the initial years of working life. An appropriate mechanism would be a system of wage subsidies for young workers inversely related to age.

'To emphasize the redistributive element, we suggest a flat-rate scheme. Subsidies of something like \$1.50 an hour for all workers aged fifteen to eighteen, \$1.00 for those nineteen to twenty, and \$0.50 for those twenty-one and twenty-two might be appropriate. Rough calculations indicate that gross subsidies under the system of OJT [on-the-job training] subsidy suggested would total about \$2 billion annually. That is, such a program would inevitably be very expensive. (The federal manpower training budget as of 1982 was about \$1 billion, and total post-secondary expenditure about \$8 billion.)'

The authors conclude that in the current atmosphere of government restraint, additional expenditure on this scale seems unlikely to be undertaken. Therefore, they call for a reallocation of expenditure from formal education towards on-the-job training.

They recommend that the funds required to finance the suggested wage subsidies for young workers be obtained by reducing expenditure on formal education.

Unfortunately, this too poses a big problem...the federal government does not have the policy tools necessary to effect reallocation unilaterally. Federal-provincial cooperation is required and that may be difficult to obtain.

Change the form of federal funding of post-secondary education

The study suggests Ottawa and the provinces negotiate changes in (EPF), the Established Programs Financing, wherein post-secondary funding is related to enrolment.

'Is there anything else the federal government could do to encourage enrolment responsiveness? If part of current lump sum grants under EPF could be tied instead to an appropriately weighted index of post-secondary enrolment, federal dollars would encourage enrolment demand responsiveness rather than merely swelling provincial coffers. (Federal funds could also be made partly contingent on the provinces' increasing tuition fee revenue.) Detailed federal-provincial consultation would of course be required to implement such a change. However, it seems to us that the federal government is in a sufficiently strong bargaining position to secure a new regime wherein post-secondary funding was related to enrolment.'

Professors Davies and MacDonald say that merely reducing federal support for post-secondary education is not a satisfactory method of effecting this reallocation, because of the likely provincial response: inadequate increases in tuition fees and further post-secondary underfunding.

'The poor results of simply cutting federal support imply a need, in our view, for some hard bargaining directed as obtaining a reallocation of resources without undesirable side-effects. The federal government could, for example, reduce its support for post-secondary education but at the same time threaten not to introduce the wage subsidy for young workers in a province unless tuition fees were raised sufficiently to bring post-secondary revenues up to some target level.'

Another point the authors make is that there is no reason why the strategy of exploiting the market mechanism to get the right mix and amount of different forms of training could not be applied to manpower training as well as to more formal education.

'Why should manpower trainees not be allowed the same kind of freedom of choice as, say, post-secondary students? They could, for example, be given vouchers that could be redeemed at any accredited institution for manpower training—including private schools and ordinary firms, as well as provincial technical colleges. Employment and Immigration Canada would no doubt wish to continue its manpower forecasting in order to provide trainees with information designed to help them make appropriate choices. In our view, however, we have much stronger assurances of good choices, and of manpower training resources being well allocated, if the trainees are free to act as they believe is best in the light of information both from sources like COPS (Canadian Occupational Projection System) and from their own private sources.'

Government intervention in education and training

The authors contend there is an argument for government intervention in education and training on efficiency grounds, if there are positive benefits that accrue to society at large rather than to the student—that is, if there are 'externalities'. As economists are accustomed to point out, *externalities justify*

subsidies. In this case, subsidies not only to formal schooling but also to on-the-job-training are justified.

'Government subsidies that reduce tuition fees are not the only form of intervention justified by externalities. If the private market for student loans is viewed as inoperative, in the absence of government-sponsored student loans some of the external benefits of education would not be realized. Some students would be forced to terminate schooling too early. This suggests the provision of loans in amounts large enough to finance student subsistence at a reasonable standard of living to those students who would not otherwise be able to finance continued education. That is, we have provided an efficiency-based justification for something very similar to the current Canada Student Loan Plan (CSLP)'.

The study looks at the question of *government involvement in providing education in state schools and community colleges*. (Universities are not state institutions, although they receive most of their funding from the state. They do have considerable remaining independence and are therefore in a category distinct from schools and colleges.)

The authors answer the question by arguing that *it is harmful to have education provided directly by the state*, because there is no natural mechanism that ensures efficient methods of production or the correct mix and amount of different types of schooling.

'In our view it would be desirable to bring the benefits of the market mechanism increasingly into our schools, colleges, and universities. At the elementary and secondary level this may be done through voucher or tax credit schemes. Confidence in the results is enhanced by Canadians' considerable experience with parental choice between state and independent schools, and by the evident value of competition at the post-secondary level. Indeed, something similar to a national voucher scheme is in force at the post-secondary level, where qualified students can choose to attend practically any Canadian institution, paying more or less uniform (and highly subsidized) fees. The high quality of Canadian post-secondary education owes much to this freedom of choice. The competitive mechanism would work even more effectively, however, with the elimination of certain constraints. The most important step would be to give post-secondary institutions full control over fees. We would then expect the post-secondary sector to fulfil even more

closely public expectations on the range and quality of programs and responsiveness to changes in demand conditions.'

Conclusion

In the absence of a move towards more competitive conditions what lessons does this study have for policy makers? The major moral perhaps is that they should recognize that skill acquisition is not the only element of education that is justified from a job market point of view. A great deal of the current activity in our education and training systems is more accurately characterized as investment in information rather than in vocational training. A greater emphasis on skills alone may mean a diminution in this other basic element of education. We may turn out graduates who are on the average more skilled, but who also have less information about their inherent capacities and therefore end up on the average with poorer job-worker matches.

While it may be an appropriate strategy now to increase skill acquisition at the cost of reducing the average quality of job-worker matches, it is clear that this will not always be the case. If planners are at least aware that there is another element in education that is important for the job market success of graduates, aside from skill acquisition, they may react more quickly when the signs indicate a switch back from vocationalism. The ability to react quickly may be especially important in the near future if, as many expect, the rapid, and perhaps increasing current pace of technological change leads students to conclude that they are better off investing to a greater extent in person-specific information and to a lesser extent in narrow skills that may rapidly become obsolete.

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Information in the Labour Market: Job-Worker Matching and Its Implications for Education in Ontario, 190 pages, price \$15.00, is available at the following outlets:

The Ontario Government Bookstore, 880 Bay Street, Toronto, to those shopping in person. Out-of-town customers may write: Publications Section, Fifth Floor, 880 Bay Street, Toronto, Ontario, M7A 1N8, or telephone 965-6015 (toll-free long distance, 1-800-268-7540; in northwestern Ontario, 0-Zenith 67200). A cheque or money order, payable to the Treasurer of Ontario, must accompany all mail orders.

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